

U. S. PLANT PATENT APPLICATION OF

WENDY R. BERGMAN

FOR: CHRYSANTHEMUM PLANT NAMED

‘YOPROVIDENCE’

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TITLE: CHRYSANTHEMUM PLANT NAMED 'YOPROVIDENCE'

APPLICANT: WENDY R. BERGMAN

BOTANICAL CLASSIFICATION/CULTIVAR DESIGNATION:

Chrysanthemum X morifolium cultivar Yoprovidence

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BACKGROUND OF THE INVENTION

The present Invention relates to a new and distinct cultivar of Chrysanthemum plant, botanically known as *Chrysanthemum X morifolium* and hereinafter referred to by the name 'Yoprovidence'.

10 The new Chrysanthemum is a product of a planned breeding program conducted by the Inventor in Salinas, California and Fort Myers, Florida. The objective of the program is to create or discover new potted Chrysanthemum cultivars that are suitable for year-round production with uniform plant growth habit, good vigor and strong branching habit, numerous inflorescences, desirable inflorescence form
15 and floret colors, fast and uniform flowering response, and good postproduction longevity.

The new Chrysanthemum originated from a cross-pollination made by the Inventor in February, 2000, in Salinas, California, of a proprietary Chrysanthemum seedling selection identified as code
20 number YB-A1516, not patented, as the female, or seed, parent with a

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proprietary Chrysanthemum seedling selection identified as code
number YB-A0161, not patented, as the male, or pollen, parent. The
new Chrysanthemum was discovered and selected by the Inventor in
November, 2000, as a single flowering plant from within the resulting
5 progeny of the stated cross-pollination grown in a controlled
environment in Fort Myers, Florida.

The selection of this plant was based on its uniform plant growth
habit, good vigor and strong branching habit, numerous inflorescences,
desirable inflorescence form and floret colors, fast and uniform
10 flowering response, and good postproduction longevity.

Asexual reproduction of the new Chrysanthemum by vegetative
tip cuttings was first conducted in Fort Myers, Florida in February,
2001. Asexual reproduction by cuttings has shown that the unique
features of this new Chrysanthemum are stable and reproduced true to
15 type in successive generations.

SUMMARY OF THE INVENTION

The cultivar Yoprovidence has not been observed under all
possible environmental conditions. The phenotype may vary somewhat
with variations in environment such as temperature, daylength, and/or
20 light level, without, however, any variance in genotype.

The following traits have been repeatedly observed and are determined to be the unique characteristics of 'Yoprovidence'. These characteristics in combination distinguish 'Yoprovidence' as a new and distinct Chrysanthemum:

- 5 1. Uniform and outwardly spreading plant habit.
2. Strong and freely branching growth habit.
3. Dark green-colored foliage.
4. Uniform flowering response and habit.
5. Can be grown as a disbud or as a spray-type.
- 10 6. Early flowering, eight week response time.
7. Decorative-type inflorescences.
8. Bright yellow-colored ray florets.
9. Good postproduction longevity with plants maintaining
 good substance and color for about four to five weeks in an
15 interior environment.

Plants of the new Chrysanthemum can be compared to plants of the female parent selection. Plants of the new Chrysanthemum differ from plants of the female parent selection primarily in ray floret coloration as plants of the female parent selection have bronze-colored

ray florets. In addition, plants of the new Chrysanthemum flower have stronger lateral stems than plants of the female parent selection.

Plants of the new Chrysanthemum can be compared to plants of the male parent selection. Plants of the new Chrysanthemum differ
5 from plants of the male parent selection primarily in ray floret coloration as plants of the male parent selection have white-colored ray florets. In addition, inflorescences of plants of the new Chrysanthemum do not have disc florets whereas inflorescences of plants of the male parent selection have disc florets.

10 Plants of the new Chrysanthemum can be compared to plants of the cultivar Yocovington, disclosed in U.S. Plant Patent number 13,031. In side-by-side comparisons conducted in Fort Myers, Florida, plants of the new Chrysanthemum differed from plants of the cultivar Yocovington in the following characteristics:

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1. Plants of the new Chrysanthemum were taller than plants of the cultivar Yocovington.
 2. Inflorescences of plants of the new Chrysanthemum did not have disc florets whereas inflorescences of plants of the cultivar Yocovington had disc florets.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

The accompanying colored photographs illustrate the overall appearance of the new Chrysanthemum showing the colors as true as it is reasonably possible to obtain in colored reproductions of this type.

5 Colors in the photographs may differ from the color values cited in the detailed botanical description which accurately describe the colors of the new Chrysanthemum. The photograph on the first sheet comprises a side perspective view of typical flowering plants of 'Yoprovidence' grown as a disbud-type. The photograph on the second sheet comprises
10 a side perspective view of typical flowering plants of 'Yoprovidence' grown as a spray-type. The photograph on the third sheet comprises a close-up view of typical inflorescences of 'Yoprovidence' grown as a disbud-type. The photograph on the fourth sheet comprises a close-up view of typical inflorescences of 'Yoprovidence' grown as a spray-type.

15 DETAILED BOTANICAL DESCRIPTION

In the following description, color references are made to the Royal Horticultural Society Colour Chart, 1995 Edition, except where general terms of ordinary dictionary significance are used. The
aforementioned photographs, following observations and measurements
20 describe plants grown and flowered during the winter in Salinas,

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California, in a fiberglass-covered greenhouse and under conditions which approximate those generally used in commercial potted Chrysanthemum production. During the production of these plants, the following conditions were measured: day temperatures, 21 to 27°C; 5 night temperatures, 17 to 19°C; and light levels, 5,000 to 6,000 foot-candles. Four unrooted cuttings were directly stuck in 15-cm containers, exposed to long day/short night conditions, and pinched once about two weeks later. At the time of the pinch, the photoinductive short day/long night treatments were initiated. Plants used for the description were 10 grown as disbud-types. Measurements and numerical values represent averages of typical flowering plants.

BOTANICAL CLASSIFICATION:

Chrysanthemum X morifolium cultivar Yoprovidence.

COMMERCIAL CLASSIFICATION:

15 Decorative-type potted Chrysanthemum.

PARENTAGE:

Female, or seed, parent: Proprietary *Chrysanthemum X morifolium* seedling selection identified as code number YB-A1516, not patented.

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Male, or pollen, parent: Proprietary *Chrysanthemum X morifolium* seedling selection identified as code number YB-A0161, not patented.

PROPAGATION:

5 Type: Terminal tip cuttings.

Time to initiate roots: About four days at 21°C.

Time to produce a rooted cutting: About ten days at 21°C.

Root description: White, close to 155D; fibrous.

Rooting habit: Freely branching.

10 PLANT DESCRIPTION:

Appearance: Herbaceous decorative-type potted Chrysanthemum that can be grown as a spray or as a disbud-type. Upright with lateral branches outwardly spreading; uniformly mounded crown. Strong and freely branching growth habit; about three or four lateral branches develop after removal of terminal apex (pinching); dense and full plants.

Plant height: About 26 cm.

Plant width: About 38 cm.

Lateral branches:

20 Length: About 18.5 cm.

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Diameter: About 4 mm.

Internode length: About 1.4 cm.

Strength: Strong.

Texture: Pubescent.

5 Color: Close to 144A.

Foliage description:

Arrangement: Alternate; simple.

Length: About 6.6 cm.

Width: About 5 cm.

10 Apex: Mucronate.

Base: Attenuate with truncate tendencies.

Margin: Palmately lobed, sinuses between lateral lobes parallel to divergent.

Texture, upper and lower surfaces: Pubescent.

15 Color:

Developing foliage, upper surface: Slightly darker than 147A.

Developing foliage, lower surface: Slightly darker than 147B.

20 Fully expanded foliage, upper surface: 147A.

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Fully expanded foliage, lower surface: 147B.

Venation, upper surface: Close to 147A.

Venation, lower surface: Close to 147B.

Petiole length: About 3.3 cm.

5 Petiole diameter: About 3 mm.

Petiole color, upper surface: Close to 147A.

Petiole color, lower surface: Close to 147B.

INFLORESCENCE DESCRIPTION:

10 Appearance: Decorative-type inflorescence form with elongated oblong-shaped ray florets. Inflorescences borne on terminals above foliage. Disk and ray florets develop acropetally on a capitulum. Inflorescences not fragrant. Plants can be grown as spray or as disbud-types.

15 Flowering response: Under natural conditions, plants flower in the autumn/winter in the Northern Hemisphere. At other times of the year, inflorescence initiation and development can be induced under short day/long night conditions (at least 13.5 hours of darkness). Early flowering; plants exposed to two weeks of long day/short night conditions followed by photoinductive short
20 day/long night conditions flower about eight weeks later.

Postproduction longevity: Inflorescences maintain good color and substance for about four to five weeks in an interior environment.

5 Quantity of inflorescences: Grown as a disbud-type, only one inflorescence develops per lateral branch.

Inflorescence bud:

Height: About 6 mm.

Diameter: About 8 mm.

Shape: Oblate.

10 Color: Close to 144A.

Inflorescence diameter: About 8.75 cm.

Inflorescence depth (height): About 3.1 cm.

Diameter of disc: No disc florets observed.

Receptacle diameter: About 7 mm.

15 Ray florets:

Shape: Elongated oblong.

Orientation: Initially upright, then perpendicular to the peduncle and eventually reflexing.

Aspect: Straight, convex.

20 Length: About 4.3 cm.

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Corolla tube length: About 7 mm.

Width: About 1.3 cm.

Apex: Rounded, acute or emarginate.

Base: Fused into a corolla tube.

5 Margin: Entire.

Texture: Smooth, glabrous, satiny.

Number of ray florets per inflorescence: About 195
arranged in numerous whorls.

Color:

10 When opening and fully opened, upper surface:
Close to 6A.

When opening and fully opened, lower surface:
Close to 6D.

Disc florets: No disc florets observed.

15 Phyllaries:

Quantity per inflorescence: About 22.

Length: About 9 mm.

Width: About 3 mm.

Shape: Deltoid.

20 Apex: Acute.

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Base: Truncate.

Margin: Entire.

Texture, upper surface: Waxy, smooth.

Texture, lower surface: Pubescent.

5 Color, upper surface: Lighter than 147A.

Color, lower surface: Darker than 144A.

Reproductive organs:

Gynoecium:

Style color: Close to 144B to 144C.

10 Stigma color: Close to 9A.

Seed/fruit: Seed and fruit production has not been observed.

DISEASE/PEST RESISTANCE:

Resistance to pathogens and pests common to Chrysanthemums
has not been observed on plants grown under commercial
15 greenhouse conditions.